

Title (en)

METHOD FOR OBTAINING METALS AND RARE EARTH METALS FROM SCRAP

Title (de)

VERFAHREN ZUR GEWINNUNG VON METALLEN UND SELTENEN ERDEN AUS SCHROTT

Title (fr)

PROCÉDÉ PERMETTANT D'OBTENIR DES MÉTAUX ET DES MÉTAUX DES TERRES RARES À PARTIR DE FERRAILLES

Publication

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Application

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Abstract (en)

[origin: WO2012152408A1] The method is used to obtain metals, noble metals, and rare earth metals from scrap. The aim of the invention is to provide a method that allows an efficient recovery even from electronic scrap. This is achieved in that the scrap and carbon-containing materials (A) are oxidized with oxygen-containing gases (11) in the presence of alkaline materials under overall reducing conditions with an overall lambda of <1 in an updraft gasifier (2) with a bulk material moving bed, said gasifier having a reduction zone (13) and an oxidation zone (7). The resulting syngas is drawn at the upper part (16) of the updraft gasifier, and the metals, noble metals, and rare earth metals are bound at least partly to the alkaline materials as oxides and/or in elementary form. Finally, said metals are obtained from the process as an enriched mixture (B) by means of physical separation methods.

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